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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/523,871

02/07/2005

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EXAMINER

HASAN, MOHAMMED A

ART UNIT

PAPER NUMBER

2873

MAIL DATE

DELIVERY MODE

08/14/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

**Application No.**

10/523,871

**Applicant(s)**

NAKANO ET AL.

**Examiner**

Mohammed Hasan

**Art Unit**

2873

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 February 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SF/88)  
Paper No(s)/Mail Date 5/22/2007, 3/17/2005
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date: \_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_

## **DETAILED ACTION**

### ***Priority***

1. Receipt of acknowledged of papers submitted under 35 U.S.C. 119 (a) – (d), which papers have placed in the file.

### **Oath/Declaration**

2. Oath and declaration filed on 2/7/2005 is accepted.

### **Information Disclosure Statement**

3. The prior art documents submitted by applicant in the Information Disclosure Statement filed on 5/22/2007 and 3/17/2005 have all been considered and made of record (note the attached copy of form PTO – 1449).

### ***Drawings***

4. The drawings are objected to because some of the figures numeral number are hand written and shadow. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as

"amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

#### ***Specification***

5. The abstract of the disclosure is objected to because " Abstract" should be less than 150 words and one paragraph . Correction is required. See MPEP § 608.01(b).

#### ***Claim Rejections - 35 USC § 102***

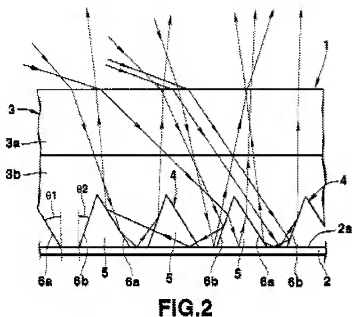
6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9 are rejected under 35 U.S.C. 102 (b) as being anticipated by Higuchi (6,324,011 B1).

Regarding claim 1, Higuchi discloses (refer to figure 1-14) an illumination apparatus in which a through-hole for detection is formed at a center portion, and which irradiates diffused light and directional light to an object to be detected, characterized in that at least an annular diffusion plate which diffuses light, light source which were disposed annularly, and an annular reflection plate which reflects light from the light source to the side of said object to be detected, are disposed in the order from the side of object to be detected, and diffused light is generated by irradiating light from said light source to the object to be detected through said diffusion plate (40) , and light from said light source is reflected by reflection plate(1) and then, irradiated to the object to be detected (column 6, lines 40-65, column, 26, lines 10-45).



Regarding claim 2, Higuchi discloses, characterized in that the light source comprises two kinds of a light source for diffused light and a light source for directional light, and an annular fixing plate, on which the light source for diffused light was disposed on a surface which becomes the side of said object to be detected and the light source for directional light was disposed on the other surface, was disposed between said diffusion plate and said reflection plate ( as shown in figure 11).

Regarding claim 3, Higuchi discloses characterized in that the light source for directional light is attached through a flexible elastic pin from fixing plate ( as shown in figure 11).

Regarding claim 4, Higuchi discloses characterized in that an illumination control section, which individually controls the light source for diffused light and the light source

for directional light, is provided, and the illumination control section carries out a switch operation for switching over lighting of each light source, and an adjustment operation for changing illumination intensity of each light source ( as shown in figure 1).

Regarding claim 5, Higuchi discloses characterized in that said reflection plate is a side end face of an inner surface of the case which provides accommodation for light source and diffusion plate ( 40 ) ( as shown in figure 14).

Regarding claim 6, Higuchi discloses characterized that at least a side end face of case inner surface is of a white color or a metal color (as shown in figure 1) .

Regarding claim 7, Higuchi discloses, an image pickup camera which picks up an image of the object to be detected, which was illuminated by the illumination apparatus, and a control section which carries out recognition processing of the object to be detected, by use of the image which was picked up ( as shown in figure 1).

Regarding claim 8, Higuchi discloses A component mounting apparatus which has an absorption nozzle, with which a transfer head, which moves on the upper side of a substrate, was equipped, absorbed and held a component, and transfers said transfer head to mount the component on the substrate at a predetermined position, characterized in that a recognition apparatus which is disposed on said transfer head and detects a mark for alignment which was disposed on said substrate and corrects a mounting position of said component depending on a detection position of the mark for alignment is the recognition apparatus ( as shown in figures 1-17).

Regarding claim 9, Higuchi discloses A component mounting apparatus which has an absorption nozzle, with which a transfer head, which moves on the upper side

of a substrate, was equipped, absorbed and held a component, and transfers said transfer head to mount the component on the substrate at a predetermined position, characterized in that a recognition apparatus which is disposed on the lower side of said transfer head and recognizes a component which was absorbed and held by said absorption is the recognition apparatus ( as shown in figures 1-17).

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The closest prior art Matsunaga et al (7,271,862 B2) discloses a light diffusing sheet and an optical element and image display.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammed Hasan whose telephone number is (571) 272-2331. The examiner can normally be reached on M-TH, 7:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ricky L Mack can be reached on (571) 272- 2333. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mohammed Hasan/  
Primary Examiner, Art Unit 2873  
8/11/2008